VET-LAFT (Vet Learning Advanced Field Treatment)

Normal Serum Chemistry Values for Adult Animals

PARAMETERS	UNIT	DOG	CAT	COW	HORSE	PIG	MITHUN	GOAT
Blood Glucose (Random)	mg/dL	76– 119	60– 120	40– 100	62-134	66-116	24.82-101.73	48-76
Total Protein	g/dL	5.4– 7.5	6– 7.9	6.7– 7.5	5.6– 7.7	5.8-8.3	6.70-8.77	6.1-7.5
Albumin	g/dL	2.3– 3.1	2.8– 3.9	2.5– 3.8	2.6– 4.1	2.3-4	3.68-4.54	2.3-3.6
Globulin	G/dL	2.4– 4.4	2.6– 5.1	3– 3.5	2.6– 4	3.9– 6	3.21– 3.92	2.7– 4.4
ALT	u/L	10– 109	25– 97	6.9– 35	2.7– 21	22– 47	18.40– 66.90	15– 52
AST	u/L	13– 15	7– 38	60– 125	160– 412	15– 55	78.32– 135.51	66– 230
ALP	u/L	1– 114	0– 45	18– 153	70– 227	41– 176	134.70– 213.68	61– 283
Amylase	u/L	226–1063	550– 1458	41– 98	47– 188	44– 88	-	–
CPK	u/L	52– 368	69– 214	0– 350	60– 330	66– 489	-	16– 48
LDH	u/L	0– 236	58– 120	309– 938	112– 456	160– 425	-	79– 265
SDH	u/L	3.1– 7.6	2.4– 6.1	4.3– 15.3	1– 8	0.5– 4.9	-	9.3– 21
TB	mg/dL	0– 0.3	0– 0.1	0– 1.6	0– 3.2	0– 0.5	0.26– 0.58	0.1– 0.2
DB	mg/dL	0– 0.4	0– 0.1	0.04– 0.44	0– 0.4	0– 0.3	0.19– 0.43	-
BUN	mg/dL	8– 28	19– 34	10– 25	11– 27	8.2– 25	14.06– 38.66	13.26
Creatinine	mg/dL	0.5– 1.7	0.9– 2.2	0.5– 2.2	0.4– 2.2	0.8– 2.3	0.91– 1.82	0.7– 1.5
Cholesterol	mg/dL	135– 278	71– 156	62– 193	71– 142	81– 134	110.36– 280.85	65– 136
TG	mg/dL	22.5– 46	0.18– 0.40	0– 14	4– 44	37– 49.2	87.48– 126.29	0.26– 2.02
Calcium	mg/dL	9.1– 11.7	8.7– 11.7	8– 11.4	10.2– 13.4	9.3– 11.5	7.05– 14.82	9– 11.6
Mg	mg/dL	1.6– 2.4	1.7– 2.6	1.5– 2.9	1.4– 2.3	2.3– 3.5	1.70– 3.57	2.1– 2.9
P	mg/dL	2.9– 5.3	3– 6.1	5.6– 8	1.5-4.7	5.5– 9.3	1.53– 5.96	3.7– 9.7
Na	mEq/L	142– 152	146– 156	136– 144	128– 142	139– 153	57.7– 250.91	137– 152
Fe	ug/dL	49– 151	84– 233	57– 162	91– 199	73– 140	11.07– 33.90	49– 151
Potassium	(mEq/L)	3.9-5.1	3.7-6.1	3.6-4.9	2.9-4.6	4.4-6.7		3.5–6.7

PARAMETERS	UNIT	DOG	CAT	COW	HORSE	PIG	SHEEP	GOAT	MITHUN	RABBIT
Blood Glucose	mg/dL	76– 119	60– 120	40– 100	62-134	66-116	50–80	48-76	24.82-101.73	75-155
Total Protein	g/dL	5.4– 7.5	6– 7.9	6.7– 7.5	5.6– 7.7	5.8-8.3	6.0–7.9	6.1-7.5	6.70-8.77	5.4–7.5
Albumin	g/dL	2.3– 3.1	2.8– 3.9	2.5– 3.8	2.6– 4.1	2.3-4	2.4–3.0	2.3-3.6	3.68-4.54	2.7–5.0
Globulin	G/dL	2.4– 4.4	2.6– 5.1	3– 3.5	2.6– 4	3.9– 6	3.5–5.7	2.7– 4.4	3.21– 3.92	1.5–2.7
ALT	u/L	10– 109	25– 97	6.9– 35	2.7– 21	22– 47	26–34	15– 52	18.40– 66.90	45-80
AST	u/L	13– 15	7– 38	60– 125	160– 412	15– 55	60–280	66– 230	78.32– 135.51	35-130
ALP	u/L	1– 114	0– 45	18– 153	70– 227	41– 176	68–387	61– 283	134.70– 213.68	12-96
Amylase	u/L	226– 1063	550– 1458	41– 98	47– 188	44– 88	-	–	-	200-400
CPK	u/L	52– 368	69– 214	0– 350	60– 330	66– 489	8.1–12.9	16– 48	-	140–372
GGT	u/L	0-7	0-6	6–17.4	6–32	10–60	20–52	20-56	-	0-7
LDH	u/L	0– 236	58– 120	309– 938	112– 456	160– 425	238–440	79– 265	-	-
SDH	u/L	3.1– 7.6	2.4– 6.1	4.3– 15.3	1– 8	0.5– 4.9	5.8-27.9	9.3– 21	-	-
TB	mg/dL	0– 0.3	0– 0.1	0– 1.6	0– 3.2	0– 0.5	0.1–0.5	0–0.1	0.26– 0.58	0–0.7
DB	mg/dL	0– 0.4	0– 0.1	0.04– 0.44	0– 0.4	0– 0.3	-	0-0	0.19– 0.43	
IB	mg/dl	0-0.1	0-0.1	0-0.1	0.3-2.0		-	0-0.1		
BUN	mg/dL	8– 28	19– 34	10– 25	11– 27	8.2– 25	8–20	13.26	14.06– 38.66	20-45
Creatinine	u/L	0.5– 1.7	0.9– 2.2	0.5– 2.2	0.4– 2.2	0.8– 2.3	1.2–1.9	0.7– 1.5	0.91– 1.82	0.5-2.5
Cholesterol	mg/dL	135– 278	71– 156	62– 193	71– 142	81– 134	52–76	65– 136	110.36– 280.85	10–80
TG	mg/dL	22.5– 46	0.18– 0.40	0– 14	4– 44	37– 49.2	-	0.26– 2.02	87.48– 126.29	
Calcium	mg/dL	9.1– 11.7	8.7– 11.7	8– 11.4	10.2– 13.4	9.3– 11.5	11.5–12.8	9– 11.6	7.05– 14.82	11–14
Mg	mg/dL	1.6– 2.4	1.7– 2.6	1.5– 2.9	1.4– 2.3	2.3– 3.5	2.2–2.8	2.1– 2.9	1.70– 3.57	-
P	mg/dL	2.9– 5.3	3– 6.1	5.6– 8	1.5-4.7	5.5– 9.3	5.0–7.3	3.7– 9.7	1.53– 5.96	4-6.8
Fe	ug/dL	49– 151	84– 233	57– 162	91– 199	73– 140		49– 151	11.07– 33.90	
Na	mEq/L	142– 152	146– 156	136– 144	128– 142	139– 153	139–152	137– 152	57.7– 250.91	138-150
Chloride	mEq/L	110–124	115–130	99–107	98–109	94–106	95–103	99–110.3	-	-
Potassium	mEq/L	3.9–5.1	3.7–6.1	3.6–4.9	2.9–4.6	4.4–6.7	3.9–5.4	3.5-6.7	-	3.5–6.9

HEMATOLOGY OF COMMON DOMESTIC ANIMALS

Species	Dog	Cat	Cattle	Sheep	Goat	Horse	Pig
Hb (g/dl)	12 - 18	08 - 15	08 - 15	09-15	08-12	11-19	10.0-16.0
PCV (%)	37 - 55	24 - 45	24-46	27-45	22-38	33-53	32-50
RBC (x 10^6 cells/µl)	5.5 - 8.5	05 - 10	05-10	09-15	08-18	6.8-12.9	5.0-8. 0
WBC (x 10^3 cells/µl)	06 - 17	5.5 - 19.5	04-12	04-12	04-13	5.4-14.3	11-22
Neutrophil (Banded)	0-30 (0-4%)	0-300 (0-2%)	0-120 (0-2%)	Rare	Rare	0-100 (0-08%)	0-880 (0–04%)
Neutrophil (Segmented)	3000-11500 (51-84%)	2500-12500 (45–64%)	600-4000 (15-45%)	700-6000 (20-40%)	1200-7200 (30-48%)	2260-8580 (22-72%)	3100-10 500 (20-70%)
Lymphocytes	1000-4800 (08-38%)	1500-7000 (27–36%)	2500-7500 (45-75%)	2000-9000	2000-9000 (50-70%)	1500-7700 (17-68%)	4300-13600 (35–75%
Monocytes	150-1350 (01-09%)	0-850 (0-5%)	25-840 (02-07%)	0-06%	0-550 (0-04%)	0-1000 (0-14%)	200-220 (0–10%)
Eosinophils	100-125 (0-09%)	0-1500 (0-4%)	0-2400 (0-20%)	0-10	50-650 (01-08%)	0-1000 (0-10%)	55–2420 (0–15%)
Basophils	Rare	Rare	0-200 (0-2%)	0-03%	0-120 (0-01%)	0-290 (0-04%)	(0–3%)
Platelets (x 10^5/ µl)	02 - 05	03 - 07	1-8	01-08	-	1.17–2.56	02 - 05

Compiled by Dr. G. Ram Babu